

Royal City Wastewater Infrastructure Needs



Figure 1: Royal City is in the heart of the Columbia Basin, in Eastern Washington, seventeen miles east of the Columbia River.

More information

Ecology spoke with Royal City to gather a representative example of small community wastewater infrastructure needs.

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ADA Accessibility

To request an ADA accommodation, contact Emma Hanson (details above), or visit <https://ecology.wa.gov/accessibility> for relay service or TTY call 711 or (877) 833-6341.

Community vision

Royal City, founded in 1956, is a small farming community in Grant County. Royal City's location is ideal for aquatic recreation, like boating and fishing.

Royal City's population has increased by 30% in the last 20 years. The current estimated population is about 2,600 and steadily increasing. Royal City has experienced a housing boom over the past five years, adding 70 equivalent residential units, with more development underway.

Existing wastewater infrastructure

Royal City has only a few industries connected to their wastewater system, including a flower mill, a farm and truck equipment manufacturer, a bean storage facility, and a farm chemical company.

The City constructed a wastewater collection system and facultative lagoon treatment system in the 1960's. In 1998, the existing General Sewer Plan was developed and the plant was updated to a water reclamation facility (WRF). The WRF recharges groundwater by surface percolation of treated wastewater.

The City recently updated the WRF with a new ultraviolet (UV) disinfection system with sufficient capacity to adequately serve the City's needs for the next 20 years. In addition, the new system is designed to meet new reclaimed water regulations. Reliable disinfection prior to infiltration is an important component of a WRF to ensure only Class A water is being discharged to the ground.

Needed wastewater infrastructure

Due to the significant population growth and operational concerns at the WRF, the City is currently planning for improvements needed to accommodate treatment capacity for future growth. This planning project evaluates the WRF's ability to meet the wastewater treatment needs and provides a plan to address future regulatory requirements, capacity and operational needs. This plan will be completed by the end of 2021.

Currently, the City anticipates having fairly significant immediate needs, which may include:

- Updating the headworks for better grease and grit removal, and
- Rehabilitating the collection system, as there are issues with infiltration.

Depending on the findings in the planning document, the City may apply for design and construction in October of 2021. *The estimated costs of immediate needs are \$1-2 million.*

Fiscal standing

Expenses

- The City's annual operating expenditures are about \$381,000.
- The City has a remaining \$30,600 loan for updating the WRF.
- The City's current water loans are at \$1.23 million paid till 2038.
- The City is currently applying for a loan and grant funds for additional water system improvements, this would add \$700,000 to \$1 million in loans to the water fund if awarded the loan and grant.

Funding sources

Revenue is about 54% from the water and sewer utilities. Currently, the monthly average base rate is \$136.25, \$54.15 is for the sewer utility and the bill goes up if there's more water use.

System development fees have helped with debt and capital reserves – but the last rate change was in the 1990s. In the near future, there may be a 2-4% increase on the rates, loosely based on the capital improvements plan.

Since the City's community has a very low income, rate increases are gradual. Senior discounts are available, if they meet a certain income.

Public involvement

The City attempts to get feedback from residents on infrastructure projects, but doesn't receive much input.